

Project Financing Options

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Money...Money...Money...Money...

In an IDEA survey, 90% of respondent's identified "money" as the obstacle to implementation of CHP projects.

Source: www.districtenergy.org

The number one reason energy management projects are not implemented is that there is not enough cash or the energy manager cannot get budget approval for the limited cash available.

Source: Association of Energy Engineers

Methods of Financing

- **Direct Purchasing**
 - Cash
 - Loan
 - Bonds
 - Vendor Financing
- **Leasing**
 - Capital lease
 - True lease
- **Performance contracting**
 - Shared savings
 - Guaranteed savings
 - Outsourcing
- **Utility Programs**
- **Partnerships**
- **Incentives**

Methods of Financing: Direct Purchasing

- **Cash**
 - Available cash is used to implement project
 - Most profitable approach since you keep all revenue
 - Must be willing to manage and maintain equipment
- **Loan**
 - Borrow money from lender [bank, third party, etc.]
 - Less attractive return due to interest payments
 - Interest on loan is tax deductible
 - Must be willing to manage and maintain equipment
- **Vendor Financing**
 - Low rates to stimulate markets
- **Bonds [similar to loan]**
 - If bond issuer is tax exempt, interest paid to bond holder is tax exempt so bond holder may take smaller yield
 - General obligation bonds are issued by state or local governments
 - Revenue bonds are paid back by the revenues generated or savings achieved through project implementation

Methods of Financing: Leasing

- **Capital lease**
 - You assume ownership of leased equipment through some agreed upon option [can be bargain price at end of loan]
 - Only the interest portion of lease [loan] is deductible
 - Can depreciate immediately so depreciation is deductible
- **True lease**
 - Lessor owns the equipment
 - Lease period is shorter than equipment life
 - Ownership may be an option after lease is over; but this is not specified in the lease
 - Equipment never appears on company balance sheet; lessor depreciates the equipment
 - Total [rent] payment is deductible as an expense

***Payments can be bundled to include maintenance, taxes, and insurance.**

FAITH PLATING



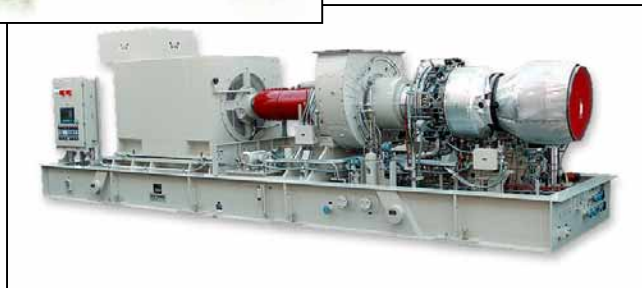
- Incentive payments from Southern California Gas Company's Select Technology Program and Self Generation Incentive Program
- Faith Plating paid for remaining equipment costs through a leasing agreement.
- Cost savings annualized range from \$55,500 to \$143,300 [depending on boiler or electric immersion heaters displaced]
- Payback period of 4 years.

Methods of Financing: Performance Contracting

- **Typical performance contracting options**
 - Shared savings
 - Guaranteed savings
 - Outsourcing [agreement as to service provided and price, chauffage]
- **Characteristics**
 - You get use of new equipment without spending capital
 - Use a share of future savings to pay for equipment
 - ESCO usually maintains the equipment
 - Performance Contract can include several of the financing options above

ESPC Used at Fort Bragg Army Base

Honeywell



CHP System

- 5 MW Turbine Generator
- 1,000 Ton absorption chiller
- Turbine exhaust also produces steam

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Methods of Financing: Utility Programs

- **Utilities may offer: low-cost financing, incentives, technical assistance, rebates, or sell electricity, cooling, or heating.**
- **Benefits include:**
 - Flexibility in project scope and size
 - Utilities could have unique expertise and knowledge of your facility
 - One-stop shopping for a turnkey project
 - Relationship with a known entity
 - Payment through utility bill
 - Pay through energy savings



- **Example** of Utility Energy Service Contract is GSA in Washington DC that provides heat and power to the Smithsonian Institution and the Department of Energy. [2003 Policy Day Plant Tour]

Methods of Financing: Partnerships

- Strategic alliances among utilities, equipment manufacturers, service providers, government, etc.
- Pooling of funds
- Rate of return depends on economic performance of project.



Market Street CHP Consortia

- NW Natural
- Oregon Office of Energy
- City of Portland
- Bonneville Power Admin.
- Pacific Power and Light
- Russell Development
- Energy Solutions Center
- American Gas Foundation



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Characteristics Affecting Which Option to Use:

- **Company**
 - Availability of rebates
 - Tax status
 - Company strategy [as related to maintenance, etc.]
 - Cash flow status
- **Project**
 - Project risk
 - Depth and breadth of skills required
 - Project need for management and maintenance
 - Equipment life and time horizon of need
- **Financial**
 - Present value
 - Impact on corporate capital structure
 - Warranty